



METHOD AND APPARATUS FOR MANAGING PURCHASE POINTS

BACKGROUND OF THE INVENTION

RECEIVED

MAR 15 2002

Technology Center 2100

1. Field of the Invention

[0001] The present invention relates to a purchase point managing technique,
5 particularly to a method and apparatus for managing purchase points awarded
at the time a user makes a purchase either online or off-line.

2. Description of the Related Art

[0002] Conventionally, a sales promotion entails awarding purchase points to
a shopper (referred to as a user hereinafter), who accumulates them, every time
10 he/she buys merchandise or a service. For example, airlines conduct mileage
accumulation programs not only for their own airline services, but which also
include points the user has earned through restaurant use and hotel stays. The
user can redeem the mileage points earned for air tickets and other awards
when he/she has reached a predetermined number of miles. Though not as
15 large in scale as the airline mileage programs, award point programs have been
used for the purchase of many items. For example, points are awarded for the
purchase of records, CDs, music tapes, and similar items, at each shop or
affiliate within a given network.

[0003] Recently, accompanied by the rapid expansion of online shopping
20 over the Internet, point services have tended to expand. Since online shopping
does not depend on location, it can attract users who reside remotely from a

shop's physical address. Namely, it can attract anyone connected to the Internet. However, it also presents a danger that users who reside close to the physical address may be captured by competitors. Moreover, since a user can compare the prices of merchandise at home, the shops must endeavor not only
5 to win the price competition but also to secure returning users by providing value-added services. As a means therefor, the point service model needs to be restructured and used effectively.

[0004] However, since there are an incredibly large number of online shopping sites available and they can each develop their own point service,
10 users may have a hard time determining which company and point service their purchase activities are linked to. For example, many users may experience a situation where, though a purchase of merchandise at one shop is linked to a discount at another shop, the user is not aware of it and will miss out on the discounted product. Moreover, even though the user has saved up a certain
15 level of eligible points, he/she may not understand which prize the points can be redeemed for. This may lead a user to redeem the points incompletely or in an unwise manner.

SUMMARY OF THE INVENTION

[0005] The present invention has been developed in light of the foregoing
20 drawbacks, and an object thereof is to provide a support technique so that users can make the most effective use of their purchase points.

[0006] An aspect of the present invention relates to an apparatus that manages purchase points. The apparatus includes a point table, a merchandise table, and an exchange table. The point table records, per user, the total point value each user has earned by purchasing merchandise. The merchandise table describes the relationship between the merchandise items for sale and the points earned for the purchase of each item. The exchange table describes the relationship between the points earned and the prize offered for a given number of points. Usually, a prize will be awarded in exchange for the user's points. The apparatus further includes a merchandise recommending unit, which presents the user with candidate merchandise that may be purchased to earn a predetermined prize.

[0007] By implementing this structure, when the user purchases merchandise, the points corresponding to the item are determined using the merchandise table. These points will be recorded in the point table. If the user already has some points, the points earned in this transaction will be added to those already earned and the total will be recorded. Thereafter, the exchange table will be referenced at some interval, and a prize equal to the level of the user's point total will be determined. In many cases however, the prize can be upgraded by purchasing a bit more and thus earning a few more points. The preferred embodiment of the present invention recognizes this point. The merchandise recommending unit detects a prize that can be earned with an additional purchase and then presents an appropriate selection of candidate

merchandise. Thus, the user can make optimum use of the points while purchasing merchandise that he/she needs.

[0008] Information on said candidate merchandise may be stored in the candidate table. In that case, the candidate table may also store information on combinations of candidate merchandise which may be purchased to acquire the predetermined prize. In order to obtain additional points (shortage points) to reach the total points (target points) needed to acquire a higher-ranked prize, the user must purchase merchandise. Therefore, it will be easier for the user to upgrade if the shortage points can be acquired by purchasing multiple items of merchandise in combination.

[0009] The merchandise recommending unit may combine the merchandise to be purchased with the timing of that purchase by referring to the merchandise table to define a purchasing model. The purchasing model may then be presented to the user. The point system usually sets a validity date for the points earned during a certain period. Thus, if a condition such as "purchase until November this year" is indicated to the user, the user does not need to worry about the validity date of the points earned.

[0010] The purchase point managing apparatus may further include a user data table which stores individual data regarding the users, wherein said merchandise recommending unit may present a user with a suitable purchasing model by selecting the purchasing model from the candidate table based on the

individual's data. For example, wine would be recommended to a user who is determined to be a wine lover based on a questionnaire or the user's purchasing history.

[0011] The apparatus may further include a point transfer unit. The point transfer unit transfers points earned by a user, in whole or in part, to another user. The point transfer unit also transfers the points earned by a single user under other point managing systems to those earned in the purchase point managing apparatus and vice-versa. "Point managing system" means a point system that is managed and operated by one shop independently or in cooperation with multiple other shops. The point transfer unit may present the user with, in a selectable manner, other point managing systems that permit a bi-directional exchange of points.

[0012] The apparatus may further include a history notifying unit. The history notifying unit manages a user's past purchase history and classifies merchandise purchased by the user based on predetermined criteria so that it may be presented to the user. The merchandise is classified based on criteria used in the household accounts, such as the number of items, a period such as "for the past 6 months", a user such as "for myself", "for family members" or "for the company", and a purchase amount such as "5,000 yen or more".

[0013] The apparatus may further include a prize presenting unit. The prize presenting unit presents the prize awarded in exchange for the user's points,

either online or off-line. Prior to this presentation, the prize presenting unit indicates a single prize or combination of multiple prizes that the points may be redeemed for. Suppose that a user has 1,000 points. The user tries to plan the best possible use of the points so as not to waste any of them. The prize
5 presenting unit indicates the best possible combination so that the user can decide quickly and easily.

[0014] Another aspect of the present invention relates to a method of managing purchase points. The method includes: recording the total point value earned by purchasing merchandise for each user; selecting candidate
10 merchandise to recommended for purchase in order for a user to acquire a predetermined prize, by comparing the total value of the points with the relationship between the merchandise, the points earned for purchase of the merchandise, and the prize offered to the user according to the points earned; and presenting the selected candidate merchandise to the user. Moreover, the
15 user may specify the prize he/she desires as the predetermined prize, in which case the candidate merchandise necessary for obtaining the shortage points to earn the prize is indicated.

[0015] Moreover, any arbitrary combination of the above-mentioned structural components in the present invention is still effective as an embodiment of the
20 present invention when applied as an apparatus, a method, a system, a recording medium, or any other mode of practice.

[0016] Moreover, this summary of the invention does not necessarily describe all necessary features, so that the invention may also be sub-combination of the features described.

BRIEF DESCRIPTION OF THE DRAWINGS

5 **[0017]** Fig. 1 shows the overall structure of the network system 10 including the purchase point managing apparatus 24 according to an embodiment of the present invention.

[0018] Fig. 2 shows the internal structure of the purchase point managing apparatus 24.

10 **[0019]** Fig. 3 shows the internal structure of the merchandise table T2.

[0020] Fig. 4 shows the internal structure of the exchange table T5.

[0021] Fig. 5 shows the internal structure of the point table T4.

[0022] Fig. 6 shows the internal structure of the purchase history table T1.

[0023] Fig. 7 shows the internal structure of the user data table T3.

15 **[0024]** Fig. 8 shows the internal structure of the candidate table T6.

[0025] Fig. 9 is an example of the screen 120 displayed on the user terminal 12 when the user accesses an on-line shopping page within the purchase point managing site 16.

[0026] Fig. 10 is the screen 120 displayed on the user terminal 12 when a
5 user clicks on the “your points” button 128.

[0027] Fig. 11 is the screen 120 displayed on the user terminal 12 when the user “Taro” clicks on the “hint for purchase” button 146.

[0028] Fig. 12 is the screen 120 displayed on the user terminal 12 when the user clicks on the “point transfer” button 148 on the screen 120 shown in
10 Fig. 10.

[0029] Fig. 13 is the screen 120 displayed on the user terminal 12 when the user clicks on the link 184.

[0030] Fig. 14 is the screen 120 displayed on the user terminal 12 when the user clicks on the housekeeping account book button 150 shown in Fig. 10.

15 **DETAILED DESCRIPTION OF THE INVENTION**

[0031] The invention will now be described based on the preferred embodiments, which are not intend to limit the scope of the present invention,

but serve to exemplify it. Not all of the features and combinations thereof described in the embodiment are necessarily essential to the invention.

[0032] Fig. 1 shows the overall structure of the network system 10, including the purchase point managing apparatus 24, according to an embodiment of the present invention. Here, a user terminal 12 and the purchase point managing site 16 are connected via the Internet 14. The user terminal 12 may be a personal computer (PC), a Personal Digital Assistant (PDA), a mobile phone with Internet 14 access, or any other appropriate hardware device. The purchase point managing site 16 is a typical site, but it may also function as an Internet Service Provider (ISP) for the user terminal 12. Moreover, it may generally serve as a portal site for sorting and managing information for the users' convenience. Throughout, the purchase point managing site 16 is configured as a portal site possessing an on-line shopping capability.

[0033] The purchase point managing site 16 includes a WWW server 20 that exchanges information with the Internet 14 via a router 18, a mail server 22, a DNS server (not shown) and other functionality as required. Although the purchase point managing apparatus 24 is provided inside of the WWW server 20, the apparatus 24 may also be provided as an independent server and can be implemented in various other modes.

[0034] Fig. 2 shows the internal structure of the purchase point managing apparatus 24. In terms of hardware components, the structure can be

implemented using a CPU, memory, and other large-scale integration (LSI) functions of the WWW server 20, while in terms of software it can be implemented using a program loaded into the memory of the WWW server 20 that is capable of performing purchase point related functions. However, Fig. 2
5 is a functional block description comprised of a combination of hardware and software components. Thus, those skilled in the art should understand that the functional block description can be implemented using hardware alone, software alone, both in combination, or through various other means.

[0035] Each processing unit of the purchase point managing apparatus 24
10 communicates with the user terminal 12 via the communication unit 30. The memory unit 44 includes a purchase history table T1, a merchandise table T2, a user data table T3, a point table T4, an exchange table T5 and a candidate table T6. The details of each table are described later, but a brief description of each is given here. The purchase history table T1 records, per user, the
15 merchandise purchased at the purchase point managing site 16. The merchandise table T2 stores data on the merchandise and the points awarded for the purchase of each item. The user data table T3 records individual data on each user. The point table T4 records, the number of points each user has earned. The exchange table T5 shows the relationship between the points
20 earned and the prizes those points can be redeemed for. The candidate table T6 stores data on candidate merchandise that can be purchased to earn the points required to reach the next highest prize level.

[0036] The merchandise display unit 34 reads merchandise data from the merchandise table T2 and displays it on the user terminal's 12 screen. The purchase receiving unit 32 receives the users' merchandise purchases made while shopping on-line. When the user decides to make a purchase, the

5 purchase receiving unit 32 refers to the merchandise table T2 and determines the point value to be awarded to the user. The user's point total is then updated in the point table T4. Moreover, the purchase receiving unit 32 adds said merchandise to the user's purchase history in the purchase history table T1

[0037] The merchandise recommending unit 36 presents candidate

10 merchandise when a user inquires about his/her point status. When the candidate merchandise is purchased, the user's point total increases and the user is eligible to receive the prize at the next award level. Thus, the inquiring user's current point total is read out of the point table T4, and the number of points required to reach the next highest prize level, the target point value, is
15 specified from the exchange table T5. Next, the current point total is subtracted from the target point value to calculate the number of shortage points.

Thereafter, merchandise that can be purchased to earn the required number of shortage points is selected from the candidate table T6 for presentation to the user. Then, the user data table T3 is referenced in order to introduce

20 merchandise that the user most likely prefers.

[0038] The point transfer unit 38 has two functions. The first relates to the process by which one user exchanges his/her points with other users of the

purchase point managing site 16. The second relates to the process by which points earned by the user at other point systems, other on-line or off-line shopping sites for example, are added to the points earned at the purchase point managing site 16, or the points earned at the site 16 are transferred to
5 another point system. The point table T4 is updated when the points are transferred. The user data table T3 is referenced if special approval by the users is required for the transfer.

[0039] When a user requests redemption of his/her points for a prize, the prize presenting unit 40 specifies the number of points to be exchanged
10 according to the exchange table T5. The point table T4 is then updated by subtracting the specified number of points from the user's point total. Final arrangements for the prize and its delivery may be completed by a back end process.

[0040] When the user inquires about his/her own purchase history, the history
15 notifying unit 42 refers to the purchase history table T1 and classifies the merchandise the user has purchased in the past according to predetermined criteria so that it may be presented to the user.

[0041] Fig. 3 shows the internal structure of the merchandise table T2. The merchandise table T2 includes a merchandise column 60, a merchandise
20 number column 62, a marked price column 64, a point column 66, and a details column 68. For example, a television is described using "21-1234" as the

merchandise number, "62000 yen" as the marked price, "62" as the number of points awarded for the purchase thereof, and by listing the URL "www.tv.com" as the page providing detailed information on the merchandise. In this example, one point is awarded for every 1000 yen of marked price (fractions are raised to the next whole number). Merchandise is not limited to goods, and may also include trips such as an "eight-day cruise in the Aegean Sea" and other services. When the user accesses a page for on-line shopping, the merchandise display unit 34 reads data from the merchandise table T2 and also displays an image (not shown) if necessary.

- 10 **[0042]** Fig. 4 shows the internal structure of the exchange table T5. The exchange table T5 includes a point column 72 and a prize column 74, and describes the number of points that must be redeemed, for example 100, to receive a specific prize, such as "a portable camera or a radio with an alarm clock". Here, the exchange value of a single point is approximately 50 yen.
- 15 Thus, the user gets 50 yen back on each 1,000 yen purchased, representing a rate of 5%.

[0043] Fig. 5 shows the internal structure of the point table T4. The point table T4 includes a user column 78 and a total point column 80. For example, the users "Hana" and "Taro" have earned "65" and "2,922" points respectively.

- 20 **[0044]** Fig. 6 shows the internal structure of the purchase history table T1. The purchase history table T1 includes a user column 84 and a merchandise

purchased column 86. For example, user "Hana" has previously purchased "a thermos with water purifier".

[0045] Fig. 7 shows the internal structure of the user data table T3. The user data table T3 includes a user column 90, a gender column 92, an age column 94, an occupation column 96, and a hobby column 98. For example, the individual data stored to describe user "Taro" is "male" for gender, "52" for age, "corporate president" for occupation, and "wine, traveling" for hobby. This information is used when the system recommends candidate merchandise.

[0046] Fig. 8 shows the internal structure of the candidate table T6. The candidate table T6 includes a point column 100 and a candidate merchandise column 102. The candidate merchandise column 102 includes a single item column 104, a two-item column 106, and three- or more-item column 108. The point column 100 indicates the number of shortage points and the candidate merchandise column 102 indicates the merchandise options by which the shortage points can be earned. For example, "a desk for PC" is a candidate for a user who wishes to acquire an additional 10 points. "High grade Soba/Udon" are the candidates if the user wishes to earn the shortage points by purchasing two items. If the user wishes to cover 80 shortage points by purchasing a single item, the candidate merchandise includes a "3-day trip in Hong Kong" and a "leather coat". If the user wishes to cover the 80 shortage points by purchasing two items, he/she can select one item from column A ("Swiss watch, MD player, etc.") in the two-item column 106 and another item from column B ("digital

camera, bicycle, etc.”). If the user wishes to cover the 80 shortage points by purchasing three or more items, he/she can choose from items including a 6-month “European tea cup” of the month subscription or a 12-month subscription for “specially selected wooden toys”.

5 **[0047]** Fig. 9 is an example of the screen 120 displayed on the user terminal 12 when the user accesses an on-line shopping page within the purchase point managing site 16. Here a “handling merchandise list” is displayed, organized into categories such as clothes 122, furniture 124, foodstuff 126, and others (not shown). Each category is divided according to
10 merchandise levels. For example, items such as “sweaters” and “shirts” are listed in the clothes category. The user accesses a page showing the merchandise list by selecting the item of his/her choice. The “your points” button 128 is provided in the lower right corner of the screen 120.

15 **[0048]** Fig. 10 is the screen 120 displayed on the user terminal 12 when the user clicks the “your points” button 128. “Taro” is displayed in the user name field 140, and “2,922” is displayed in the points-earned-so-far field 142. Prizes that can be claimed by redeeming some or all of the points already earned are displayed in the order of their point value, in increments of 100, in the prize column 144. The prize column 144 is generated using the exchange table T5.
20 The “hint for purchase” button 146, “point transfer” button 148, and “housekeeping account book” button 150 are displayed along the right side of the screen 120.

[0049] Fig. 11 is the screen 120 displayed on the user terminal 12 when the user "Taro" clicks on the "hint for purchase" button 146. The system displays a statement in the status explanation field 160 indicating that deluxe Italian furniture or other prizes can be obtained if the user saves an additional 78
5 points to reach the 3,000 point level.

[0050] Candidate merchandise recommended for purchase in order to acquire the 78 points is displayed in the merchandise recommending column 162. The merchandise recommending unit 36 selected the candidate merchandise from the candidate table T6 by referring to the user Taro's hobby
10 information ("wine, traveling"). A "3-day trip in Hong Kong" (whose last effective date of purchase is December 2001) is listed in the first recommendation field 164. The term of validity for the points already earned and the time limit for merchandise planning are taken into consideration. The second recommendation field 166, lists "world exclusive wine (12 months)" and
15 specifies its starting date (October 2001). "Details" buttons are provided for the first and second recommendation fields 164 and 166, which facilitate the user's decision making. A "return" button 170 is provided in the bottom right corner of the screen 120, allowing the user to return to the screen shown in Fig. 10.

[0051] Fig. 12 is the screen 120 displayed on the user terminal 12 when the
20 user clicks on the "point transfer" button 148 on the screen 120 shown in Fig. 10. Here, "2,922" is displayed in the transferable points field 180, as points which the user "Taro" can transfer to other people. This value may be either the

user's current points or a predetermined maximum value. The transfer specifying field 182 is provided below the transferable point field 180. The user name to whom the points are to be given and the number of points to be transferred are entered in the transfer specifying field. In this case, the user

5 "Taro" wishes to give "2,000" points to the user "Hana". When the "send" button is clicked, the point table T4 is updated to complete the transfer.

[0052] "Taro" has saved up a relatively large number of points. Instead of sending his daughter, the user "Hana", a present for her birthday, graduation, or other occasion, "Taro" can transfer points to her so that she may buy things at

10 her discretion. A 2,000 point transfer will allow "Hana" to buy things worth up to 100,000 yen. Moreover, for a user who has grandchildren, for example, the user has the option to purchase the "specially selected wooden toy" and specify the grandchildren's address as the delivery address so that the toy or other merchandise can be delivered to the grandchildren every month. Additionally,

15 the user will also earn points on this purchase. Finally, the points earned in this manner may be transferred to the grandchildren or their parents. This service model is suited to older users who have sufficient time and money to buy and send presents, but are not able to go out and shop.

[0053] Below the transfer specifying field 182, there is a link to a page where

20 the user may transfer the points he/she has earned at other on-line shops.

[0054] Fig. 13 is the screen 120 displayed on the user terminal 12 when the user clicks on the link 184. On this screen, "AAA online mart", "BBB mileage" and "CCC Record" are displayed as entries in the transferable affiliation list 190 and the user can select the desired point managing system from those listed.

5 After selecting one of the systems from the transferable affiliation list 190, the user must fill out one of the transfer point fields 192 on the right side of the screen 120. In this case up to 2,922 points can be transferred, so any value up to 2,922 points may be entered. After entering the value, the point table T4 is updated by clicking on the "decide" button 194 and the points transfer is
10 complete. Conditions such as the exchange rate between affiliated online shops and whether the transfer shall be permitted in an interactive manner may be determined between the systems involved as a separate issue. However, incorporating such conditions into the system will not be difficult.

[0055] Fig. 14 is the screen 120 displayed on the user terminal 12 when the
15 user clicks on the housekeeping account book button 150 shown in Fig. 10. A period field 200 is provided for specifying the period of history to display. Standard intervals may be provided in the case of a pull-down menu, such as "this month only", "for the last three months", "for the last half a year", and "for the last year". In Fig. 14 for example, "1 year" (for the last year) is displayed
20 and the usage is classified and displayed in a clothing items field 202, a food field 204, an entertainment field 206, and so forth. Here the total usage amount of "28,600 yen" for clothing is recorded in the clothing items field 202. The merchandise purchased, consisting of a "cashmere sweater" and two "ties", the

subtotal amounts for the items, and the purchase period are also recorded in the clothing items field 202. Similarly detailed contents for categories other than clothing are also displayed, and "101,400 yen" is reported in the total amount field 208 at the bottom of the page. The user can therefor utilize this

5 screen 120 as an online housekeeping account book.

[0056] The present invention has been described using exemplary embodiments. Those skilled in the art understand that there are various modifications to each component and combination of processes described, and that such modifications are encompassed by the scope of the present invention.

10 Examples of such modifications include the following.

[0057] Though the relationship between the prizes and the points earned are indicated in Fig. 10, it is desirable to include various valuation modes, such as where the earned points may be used for a single prize or for a combination of two or more prizes. This type of functionality can be incorporated into the prize

15 presenting unit 40. The prize presenting unit 40 may suggest a combination of prizes before it sets the prize for which the user wishes to exchange his/her earned points. When suggesting a combination, the prize presenting unit 40 may consider the individual user's data.

[0058] Although functions relating to the purchase of merchandise, such as

20 the merchandise display unit 34 and the merchandise receiving unit 32, are incorporated into the purchase point managing apparatus 24 in Fig. 2, such

functions do not need to be implemented in the purchase point managing apparatus 24. The purchase point managing apparatus 24 may specialize solely in the management of points. In that case, the purchase point managing apparatus 24 can easily be shared among multiple point managing systems, making the transfer of points between the systems and the mutual utilization thereof much easier.

[0059] According to the present embodiments, a user's points earned through the purchase of merchandise can be used effectively, helping to promote the purchase of merchandise.

10 **[0060]** Although the present invention has been described by way of exemplary embodiments, it should be understood that many changes and substitutions may be made by those skilled in the art without departing from the spirit and the scope of the present invention, which is defined by the appended claims.

15